

General Subjects Section
ACADEMIC DEPARTMENT
THE INFANTRY SCHOOL
Fort Benning, Georgia

ADVANCED INFANTRY OFFICERS COURSE
1948 - 1949

OPERATIONS OF THE 736TH FIELD ARTILLERY BATTALION, XX
CORPS ARTILLERY (3D U. S. ARMY) IN THE CAPTURE OF THE
CITY OF METZ, FRANCE, 2 - 20 NOVEMBER 1944.
(RHINELAND CAMPAIGN)

(Personal Experience of a Battalion Assistant S-2, Survey Officer)

type of operation described: ARTILLERY BATTALION IN
GENERAL SUPPORT OF A RIVER CROSSING AND ENCIRCLEMENT
OF A HEAVILY FORTIFIED AREA.

Captain John R. Glick, Infantry
ADVANCED INFANTRY OFFICERS CLASS NO II

TABLE OF CONTENTS

	<u>PAGE</u>
Index	1
Bibliography.	2
Introduction.	4
Metz - Fortress City.	5
The General Situation	7
XX Corps Plan of Attack	9
XX Corps Artillery Plan of Support.	11
The Battalion Situation	13
The Battalion Plan of Support	18
Movement to the Firing Position and Preparation for Support	20
Relief of the Battalion Commander	24
Support of the River Crossing	28
Moving Across the Moselle River	31
Survey Techniques During the Final Stages of the Operation	38
Analysis and Criticism.	44
Lessons	48
 Annex No. I	 50
Annex No. II	51
 Map A - Drive Across France	
Map B - Metz Forts - General Location	
Map C - Army Situation, 7 November 1944	
Map D - XX Corps Plan	
Map E - Support of the River Crossing	
Map F - Support to the South	

BIBLIOGRAPHY

- A-1 The Reduction of Fortress Metz,
(1 September - 6 December 1944)
An Operational Report
U. S. Army, XX Corps
(TIS Library)
- A-2 The Ghost Corps Thru Hell and High Water,
A Short History of the XX Corps, U. S. Army,
(TIS Library)
- A-3 History of the XX Corps Artillery,
(21 October 1943 - 9 May 1945)
XX Corps Artillery
(TIS Library)
- A-4 Patton and His Third Army
By Brig. Gen. Brenton G. Wallace,
Military Service Publishing Co.,
Harrisburg, Pa., 1946
(TIS Library)
- A-5 War As I Knew It
By General George S. Patton, Jr.,
Houghton Mifflin Co., Boston, Mass., 1947
(TIS Library)
- A-6 The Battle of Metz,
Translation of a French article by General Brasse,
Military Review, January 1946, page 93,
(TIS Library)
- A-7 Lucky Forward,
The History of Patton's Third U. S. Army,
By Colonel Robert S. Allen,
The Vanguard Press, Inc., New York, N.Y., 1947
(TIS Library)
- A-8 Field Artillery Operations, Chapter XIV,
Artillery in an Attack of a Fortified Locality,
Metz, France.
U. S. Forces, European Theater, General Board
(TIS Library)
- A-9 Moselle River Crossing at Cattenom,
By Major Charles E. Wright,
Armored Cavalry Journal, May 1948, page 50,
(TIS Library)
- A-10 History of the 736th Field Artillery Battalion
(Personal possession of author)

BIBLIOGRAPHY CONTINUED

- A-11 Immediate Report No. 120,
European Theater of Operations,
U. S. Army, APO 887, 28 April 1945
(TIS Library)

- A-12 After Action Report: Third U. S. Army,
(1 August 1944 - 9 May 1945) Part I,
U. S. Army, Third Army,
(TIS Library)

- A-13 Strategy of the Campaign In Western Europe, 1944-1945,
Report of the General Board,
United States Forces, European Theater, page 49,
(TIS Library)

- A-14 Perimeters in Paragraphs,
By Colonel Conrad H. Lanza,
The Field Artillery Journal,
December 1944, page 829; January 1945, page 34,
(TIS Library)

OPERATIONS OF THE 736TH FIELD ARTILLERY BATTALION, XX
CORPS ARTILLERY (3D U. S. ARMY) IN THE CAPTURE OF THE
CITY OF METZ, FRANCE, 2 - 20 NOVEMBER 1944.

(RHINELAND CAMPAIGN)

(Personal Experience of a Battalion Assistant S-2, Survey Officer)

INTRODUCTION

During the latter half of August 1944, the newly operational Third United States Army under its colorful leader, General George S. Patton, Jr., made its famous drive across France. (Map A)

To the north of the Army zone, XX Corps, commanded by Major General Walton A. Walker, was slowed down at Verdun, France, on 31 August by an acute gasoline shortage. XII Corps making a parallel drive a few miles south had also run short of gasoline. (1)

Sufficient gasoline was furnished to reconnaissance elements, however, to enable them to reach the Moselle River during the period 1 - 3 September 1944. These patrols brought back the information that the city of Metz and the river were being prepared for defense by the retreating Germans. (2)

By 5 September 1944, gasoline was again available and XX Corps, on direction of Third Army, completed plans to renew the attack on 7 September. This attack was to launch a drive through Metz to the Rhine River. (3)

The attacking 7th Armored, 5th Infantry, and 90th Infantry Divisions in XX Corps zone met increasing enemy resistance at the Moselle River line. (4) XII Corps

(1) A-1, p. 1; A-5, p. 119-120; (2) A-1, p. 2; A-5, p. 121; (3) A-1, p. 2; (4) A-1, p. 2-3.

crossed the Moselle, captured Nancy, France, and advanced to the Seille River. Finally, on order of 12th Army Group, the entire Third Army stopped its offensive on 25 September 1944. (5)

This marked the beginning of a period of operations consisting mostly of holding the ground gained but also including many limited objective attacks against selected areas in the enemy defense system. (6) The Army did not undertake a coordinated offensive again until 8 November 1944. (7) Cut

METZ - FORTRESS CITY

Metz had been the scene of wars since its founding in Celtic times, but prior to World War II it was last taken by assault in 451 A.D., when it was occupied by the Huns. (8) It has, however, changed hands many times since then as a result of other military action. (9)

In 1870 the invasion of France by the Germans resulted in their gaining control of the city, and it was ruled by them until after World War I. (10)

Prior to this, the French had built a ring of fifteen forts around the city. These were completed in 1866, four years before the start of the German rule. (11)

The Germans improved on this fortification system by building twenty eight permanent forts and fortified groups on hills about six miles from the center of the city. (12) (Map B) These outer ring forts differed from those of the

(5) A-4, p. 93; (6) A-12, p. 126; (7) A-12, p. 126, 144;
(8) A-1, p. 6; (9) A-1, p. 6; (10) (11) A-1, p. 7;
(12) A-1, p. 8.

older inner ring in that they were fortified artillery positions instead of infantry strong points. (13)

After the Germans again took possession in 1940, they started an extensive project to modernize the inner ring. This modernization included emplacing guns, reinforcing weak structures, building bunkers, (14) digging trenches, and installing communication systems to connect key forts. (15)

As a result of the successful Allied invasion of France and the start of the drive to the east, a program to improve all the forts and emplace as many artillery pieces as possible was ordered by Adolf Hitler. He also ordered that they were to be held at all costs. (16)

The XX Corps operational Report for this period describes the outer ring by saying: (17)

"Each one of the outer ring of forts was composed of a main central fort with two or three smaller reserve forts, batteries of casements. (18) All forts or groups accommodated 2,000 or 3,000 men apiece and a crew of 150 or 200 men was required for each battery. The communication system was excellent and was such that the defenders of one fort had either direct communications with other forts or indirect communication with each other through a central exchange in Metz."

Because of its heavy fortifications and calculated ability to delay or stop the advancing Americans, Metz was extremely important to the Germans. It was also an important

(13) A-1, p. 8; (14) Compartments; (15) A-1, p. 7;
(16) A-1, p. 8; (17) A-1, p. 9; (18) A bombproof chamber in a fort in which cannons are mounted.

road and rail center, (Map D) and fit into their overall strategic plan as an administrative center which was to be used later as a concentration point for ammunition and weapons to be employed in a large scale counteroffensive. (19)

Cut

THE GENERAL SITUATION

The month of October was spent by Third Army in a defensive role. Most of the limited objective attacks undertaken were successful in gaining ground, but some, such as the 5th Infantry Division assault of Fort Driant, met with failure. (20)

By 1 November, the armies along the entire front were generally abreast, and the Supreme Commander of the Allied Forces was ready to launch new attacks.

The U. S. Seventh Army which had landed in southern France had linked up with the Third Army on the south late in September. To the north the U. S. First Army, which had paralleled the advances of the Third Army across France, was on the same general line. (Map C)

On 22 October 1944, Third U. S. Army received Letter of Instruction Number 10, 12th U. S. Army Group. In these instructions the Army was given the mission of advancing in its zone to the Rhine River in the Mainz-Worms area and seizing a bridgehead if the situation permitted. (21)

Plans were prepared for accomplishing this mission, and

(19) A-1, p. 8; (20) A-1, p. 10-11; (21) A-12, p. 111.

on 3 November, 12th U. S. Army Group issued an operational directive which gave the Army instructions for the resumption of the offensive. (22)

Enemy troops facing the Army at this time were: (Map C)

416th Infantry Division

Part of 19th Infantry Division

462d Infantry Division

Elements of 48th Infantry Division

559th Infantry Division

361st Infantry Division

17th SS Panzer Grenadier Division (23)

1419th Fortress Battalion

1413th Fortress Battalion

45th Machine Gun Battalion

53d Machine Gun Battalion

11th Panzer (24) Division - (suspected).

These troops totaled about 42,500 personnel. (25)

On 1 November the German LXXXII Infantry Corps, commanded by Generaleutnant Hoennlein took over the control of the troops in this sector.

Generaleutnant Kittel, who was an expert on defense, was brought from the eastern front to command the 462d Division, (27) but he arrived too late to greatly influence the outcome of the action. (28)

On the American side of the line, Third Army had the XX and XII Corps operational and the recently added III Corps,

(22) A-12, p. 124; (23) Armored Infantry Division; (24) Armored; (25) A-12, p. 126; A-1, p. 14; (26) A-1, p. 14; (27) (28) A-1, p. 15.

which was nonoperational.

The XII Corps on the south held a sizable bridgehead over the Moselle River. (Map C) This Corps consisted of three infantry and two armored divisions.

To the north, the 5th Infantry Division of XX Corps held an extension of the same bridgehead.

XX Corps also had the 90th and 95th Infantry Divisions, the 10th Armored Division, and Task Force Polk. (29) (Map C)

The situation can be summed up by saying that the Germans had a well prepared defensive position manned by an inferior force while the American advantages were superiority in numbers and better maneuverability.

XX CORPS PLAN OF ATTACK

The task of capturing Metz fell to the XX Corps, and plans were worked out to accomplish this. (Map D)

The mission as stated in Corps' Field Order Number 12, dated 3 November 1944 was:

"XX Corps atks on D-Day, to encircle and destroy the garrison of METZ fortified area and to seize brhd over the SAAR R intact. Prepare to resume the atk to the NE." (30)

Subordinate units of the Corps were given the following instructions:

1. 5th Infantry Division - Attack on the south and

(29) 3d Cavalry Group reinforced by 689th and 241st FA Battalions, 807th TD Battalion, and 135th Engr (C) Battalion;
(30) A-1, p. 62.

move to block all routes of withdrawal from Metz. (31)

2. 95th Infantry Division - Make a vigorous demonstration of crossing the Moselle River in the vicinity of Uckange, maintain constant pressure on the enemy, be prepared to follow-up any enemy withdrawal, and be prepared to attack and seize Metz on Corps order. (32)
3. 90th Infantry Division - Pass through Task Force Polk on the night of D-D plus one and cross the Moselle River in the vicinity of Koenigsmacher, prevent the enemy from withdrawing from Metz, and aid in preventing enemy reinforcements being brought into the area. (33)
4. 10th Armored Division - Attack through the 90th Infantry Division on Corps order and reconnoiter to the Saar River with one combat command to seize bridges over the Saar intact from Merzig south. The remainder of the division was to protect the Corps left flank and aid in preventing the enemy from reinforcing the Metz garrison from the north or northeast. (34)
5. 83d Infantry Division - (Part of First Army - Under operational control of XX Corps). Exploit a breakthrough using only two regimental combat teams. This restriction was imposed by the Com-

(31) A-1, p. 62; (32) A-1, p. 62-63; (33) A-1, p. 63;
(34) A-1, p. 63.

manding General, 12th Army Group. (35)

6. Task Force Polk - Be relieved from its mission of screening the northern flank of the Corps zone upon the assault crossing of the 90th Infantry Division, assemble in the vicinity of Evrange, and be attached to the 83d Infantry Division on Corps order. (36)

XX CORPS ARTILLERY PLAN OF SUPPORT

During the month of October, XX Corps Artillery had closely controlled ammunition expenditure in order to build up a supply for the coming offensive. (37)

The Corps Artillery Commander had the following units to employ in the support of the attack to be launched on 8 November: (38)

Headquarters XX Corps Artillery

Headquarters III Corps Artillery

1 - Field Artillery Observation Battalion

(Plus 1 Flash and Sound Battery)

6 - Field Artillery Group Headquarters

17 2/3 - Field Artillery Battalions

3 - 105 mm howitzer

2 - 105 mm armored howitzer

5 - 155 mm howitzer

1 - 4.5 inch gun

1 - 155 mm gun (M-1)

1 - 155 mm gun (S/P)

(35) A-5, p. 159; (36) A-1, p. 64; (37) A-3, p. 25;

(38) A-3, p. 25, 26, 31.

2 - 8 inch howitzer

2 - 240 mm howitzer

2/3 - 8 inch gun

1 Battalion - 14 captured weapons (mixed types)

Fort Guentrange guns - 8 - 100 mm

Cut

Since the Corps zone was wide and the scheme of maneuver required two main attacks, problems of control would result if one central command post were used. This difficulty was avoided by placing the recently arrived III Corps Artillery Headquarters in operational control of the two field artillery group headquarters, one flash and sound battery, and four and two thirds field artillery battalions firing in support of the 5th Infantry Division. (39)

736 ^{Bn}
included?

To the north in support of the 90th Infantry and 10th Armored Divisions there would be one field artillery observation battalion, three field artillery group headquarters, nine field artillery battalions, the artillery of the 10th Armored Division until the division was passed through the 90th Infantry Division, and the Fort Guentrange guns. (40)

The 95th Infantry Division would be supported by one field artillery group headquarters, two field artillery battalions, and the captured weapons battalion, with additional support from some of the battalions farther north if needed. (41)

One 105 mm howitzer battalion was attached to the 90th Infantry Division and one to the 5th Infantry Division. (42)

(39) A-3, p. 26, 31; (40) A-3, p. 26, 31; (41) A-3, p. 26; (42) A-3, p. 26, 31.

Units were, to be moved prior to the attack into positions from which they could accomplish their new missions. All moves would be worked into XX Corps and XX Corps Artillery plans for secrecy. (43)

THE BATTALION SITUATION

The 736th Field Artillery Battalion was to be the only 8 inch howitzer battalion used in support of the northern attack. The other battalion of 8 inch howitzers available to Corps Artillery Headquarters was included in the artillery supporting the southern attack. (44)

The battalion had been in position near St. Marcel, France -- directly west of an approximately nine miles from Metz -- since 14 September 1944. (45) (Map C)

The battalion command post and fire-direction center (46) were located in the school house. Headquarters and Service Batteries were both located in the village and the three firing batteries were dispersed around its outskirts.

The firing batteries were well dug in to include underground shelters with built in bunks for the men.

In Battery C the howitzer positions had been prepared with a bulldozer. Dirt was pushed from the center of each individual howitzer position to form a parapet. These para-

(43) A-3, p. 26; (44) A-3, p. 31; (45) A-10, p. 7, 9; (46) The fire-direction center consists of personnel, equipment, and communication facilities necessary to assist the commander in the execution of the mission of fire support. In the execution of fire direction orders, personnel of the fire-direction center prepare firing data for both observed and unobserved fires, and conduct unobserved fires. In addition to his other duties, the S-3 is the gunnery officer of the battalion. He plans and supervises the activities of the fire-direction center (FM 6-40, p. 337-338).

*200 much
detail on a
firing position
which is not
usually located
to support the
northern attack.*

pets were made even thicker and higher by dirt which was pushed toward them from the outside. The inside of each emplacement was lined with approximately 1500 to 2000 sand bags and sand bags were used to cover the tires of the howitzers. Covered ammunition pits were prepared inside the parapets. (47)

300 much detail
The finished parapets were approximately twenty feet thick at the base and four feet thick at the top. On the inside, the height from the bottom of the emplacement to the top of the parapet was approximately seven feet. Howitzers in these emplacements could be damaged only by a direct hit. (48)

Five personnel dugouts were also constructed. They were forty to seventy feet long, about eight feet wide, and had an inside clearance of about seven feet. The roofs for these dugouts were constructed of a layer of pine logs, a layer of Air Corps landing strip material, a layer of tar paper, and a layer of four feet of earth. (49)

The dugouts were furnished with captured steel cots and with a stove. In this battery, which was located near town, electricity had even been provided by connecting into the civilian line. (50)

This major construction project was not completed without a great change in the appearance of the area. To regain a little of the old appearance, camouflage nets were used and winter wheat was planted on the fresh earth of both the

(47) (48) (49) (50) Statement of Lt. Knight, Exec. Officer of Battery C, dated 24 January 1949.

parapets and the dugout roofs. (51)

Morale in the battery was very high at this time. (52)

too much detail

Personnel of the battalion had accepted this position as home because of their personal efforts and ingenuity in preparing their living quarters and because of the false idea shared by many that they were dug in for the winter. Morale in the entire battalion was high in spite of rain, almost knee deep mud, the long period of relatively little firing, and the feeling that the Germans had definitely stopped the eastward drive until spring. Letters no longer reflected the belief that all would be home for Christmas -- a belief which grew during the mad dash across France -- but the faith in ultimate victory had not been shaken. (53)

This general feeling of "wait for spring and in the meantime make the best of the situation" was abruptly shattered on 2 November when preparations were started to resume the offensive. All possible preparations for the pending night move were made during the short winter day. Howitzers were kept under their camouflage nets but were put in traveling position, tractors and trucks were given thorough checks by their drivers, supplies and ammunition were loaded, observers were called in from observation posts, and all possible wire lines were picked up by wire teams. These preparations were, however, carefully controlled to avoid warning the enemy of the move. (54)

The battalion left its familiar position that night

(51) (52) Statement of Lt. Knight, Exec. Off, Battery C, dated 24 January 1949; (53) (54) Personal knowledge.

under the cover of darkness. (55)

It was imperative that the move of the battalion, like the movement of all other troops in the area, be made in absolute secrecy. For this reason, camouflage nets were left in position to preserve the same appearance from the air, and elements of the 23d Special Troops (ETOUSA) moved into the old howitzer positions to fire powder charges as part of the higher headquarters plan to deceive the enemy. At the same time these powder charges were set off, artillery remaining in the area would fire into enemy territory to further add to the realism. (56)

This higher headquarters plan for deception also included changing shoulder patches to the 3d Cavalry Group patch, leaving some communication nets in the old position, leaving air OP's (57) in the old position, and strict control of civilian traffic. (58)

The move was made without great difficulty, and by day-break the battalion was bivouacked near Ottange, about 20 miles north of the old St. Marcel firing position. (Map C)

The bivouac area was a dense woods, so no problems of concealment were encountered. The engines of the heavy vehicles were not started again until the battalion was ready to move to the firing position, and laughter and loud talking were prohibited to avoid detection. (59)

A slow cold rain fell during the entire time spent in this bivouac area, and the ground was wet and soggy in spite

(55) A-10, p. 9; (56) A-3, p. 26; Personal knowledge;
(57) A liaison type aircraft with pilot and observer; (58)
A-3, p. 26; (59) Statement of Lt. Knight, Exec O, Battery
C, dated 24 January 1949.

of the fact that the area was on top of a steep hill. The battalion was alerted by higher headquarters, and made ready to move out on thirty minutes notice. This alert lasted for two days and three nights prior to the actual move into firing position. (60)

In Battery A the reconnaissance officer was left in charge during most of this time. He allowed the men to pitch shelter tents and lie down in their clothes to get what sleep they could. (61) This was a much more liberal interpretation of the alert order than was made in Battery C, where the men were not allowed this privilege. (62)

for 2 days
or 3 nights?

Kitchens were not set up because of the alert, so cold rations were issued. This added to the other discomforts had a decidedly adverse effect on morale. (63)

The battalion commander, members of the battalion staff, Recon
↓
and battery commanders and their executive officers went forward on reconnaissance of the assigned firing position near Soetrich. On 6 and 7 November, the battery executive officers of the three firing batteries were allowed to go to the firing positions with small crews to prepare the exact location of the individual howitzers. They were also to assist their battery commanders in planning the organization of the battery positions, and in selecting routes into each of the howitzer locations. A well oriented guide would then be posted at the road to lead each tractor driver to the exact spot where his howitzer would be emplaced. (64)

(60) Statement of Lt. Knight, Exec O, Battery C, dated 24 Jan 49; (61) Personal knowledge; (62) Statement of Lt. Knight, Exec O, Battery C, dated 24 Jan 49; (63) Personal knowledge; Statement of Lt. Knight, Exec O, Battery C, dated 24 Jan 49; (64) Personal knowledge.

The battalion survey officer and his section of eight men were included in those allowed to go forward. He was permitted to complete the position area survey. This survey was necessary to accurately locate the base piece (65) of each of the three firing batteries so the fire direction center personnel could plot them on the firing chart. (66)

The communication officer and a small party made necessary checks of wire routes and command post locations, and laid a few essential wire lines to the batteries.

In the area assigned to Battery C there was so much surface water that a new position area was requested by the battery executive officer. This request was denied. (67)

By the afternoon of 7 November, all prior reconnaissance and preparations had been completed.

THE BATTALION PLAN OF SUPPORT

The 736th Field Artillery Battalion, as part of the 195th Field Artillery Group, was to be in general support of the 90th Infantry and the 10th Armored Divisions. (68)

Movement into the firing position ^{near SOETRICH} would be completed under the cover of darkness on the night of 7 - 8 November, and registration (69) was to be accomplished on 8 November. This registration was limited to one gun per battalion in

(65) The piece for which data are computed and with reference to which data for other pieces are determined, (FM 6-40, p. 424); (66) Map, photo map, or grid sheet on which base pieces and known locations in the target area are plotted. Used for determining ranges and shifts to targets; (67) Statement of Lt. Knight, Exec O, Battery C, dated 24 Jan 49; (68) A-3, p. 31; (69) Adjustment on a base point or check point.

compliance with an order from Corps Artillery. (70)

The plan included one ground observation post for the battalion. This post was required by the group artillery commander and the location, Hill 182, was given to the Battalion S-2 by the Group S-2. This location would permit coordination with ground observers from other battalions of the group farther north, but would not enable personnel of the 736th Field Artillery Battalion to see all of the area covered by its fire, either in depth or laterally. (71)

(Map E)

The inability to observe from the ground to the 8 inch howitzer's maximum range of 18,500 yards was normal since it was almost always impossible to find a location from which an observer could see ten miles. The lateral observation was limited by the ridge leading from Fort Koenigsmacher to the southeast. Points north of Fort Koenigsmacher were not visible from Hill 182. (Map E)

The limitation on the use of Air OP's because of the need for secrecy made it imperative that the one ground observer cover as much of the area as possible. The reconnaissance officers of both Batteries B and C had been attached to another unit for a special forward observer mission, so no trained observers were available to establish these needed observation posts. (72)

✓ Following the support of the river crossings at Cattenom and Malling and the establishing of the bridgehead in that

(70) A-5, p. 26; (71) Personal knowledge; (72) Personal knowledge.

area, the battalion would move on group order to render continuing general support in the zone of the 90th Infantry and the 10th Armored divisions.

Fire missions assigned to heavy artillery battalions are not, for the most part, close support of front line troops. The normal missions are long range counterbattery, harrassing, and interdiction fires. This requirement to fire deep into enemy held territory made it necessary to closely follow the moves of the lighter battalions in order to best utilize the fire capabilities. The Corps Artillery Commander did not allow even his heavy battalions to lag behind and lose the ability to hit targets a few thousand yards farther into the enemy rear areas. (73)

Little long range planning could be done other than make tentative plans to occupy future favorable positions. The actual moves made would depend upon the success of the supported assault troops.

MOVEMENT TO THE FIRING POSITION
AND PREPARATION FOR SUPPORT

W SOETRICH
The night move to the firing position, *when?* was made without serious incident, but considerable difficulty was encountered in getting the howitzers through the hub deep mud after they left the road. In Battery A it was necessary to drag the howitzers through the mud with two 18 ton M-4 tractors instead of the usual one, and there was considerable doubt at times that even this extra traction would be sufficient. (74)

(73) (74) Personal knowledge.

The battalion had no trucks larger than the $2\frac{1}{2}$ ton GMC. Since a 100% overload had been authorized, the ammunition trucks were hauling approximately fifty projectiles each. The weight of this load can be visualized better when it is remembered that each 8 inch howitzer projectile weighs 200 pounds.

As soon as these trucks left the road to enter the truck park, they mired in the soft field. One truck in Battery A snapped a rear axle when only a few yards off the hard surfaced road and most of the trucks hauling ammunition had to be towed to the motor park by tractors. (75)

In Battery C the situation was even worse. This battery arrived at the firing position at 1900 hours on 7 November and it was not until 1200 hours the next day that the howitzers were finally ready to fire. This was a period of seventeen hours for emplacing the pieces as compared with a normal time of about two hours in other positions where some mud was encountered and howitzers were emplaced at night. (76)

In this area, two tractors were of no more value than one since the tractors sank into the mud from their own weight. An attempt to winch the howitzers in failed, at first, because the tractor was dragged back instead of the howitzer moving forward. Two tractors were finally used to anchor the one employing its winch, and the howitzers were dragged into position a winch cable length at a time. All three tractors would then move forward another winch cable

(75) Personal knowledge; (76) Statement of Lt. Knight, Exec O, Battery C, dated 24 Jan. 1949.

length, and the procedure was repeated. This was done enough times to reach the final position. The wheels had gone into the mud so deeply that the howitzers slid along on the bottom of the lower carriage. (77)

Because of the deep ruts cut by the tractors and howitzers, camouflage was very difficult. The muddy camouflage nets themselves were not easy to put over the positions. As a result of lack of sleep and extreme exertion, the men in the battery were so tired that they had become careless about camouflage discipline. (78)

In spite of the extreme difficulty encountered, all howitzers in the battalion were in position by noon on 8 November and positions were improved throughout the day in preparation for the firing on 9 November.

Prior to daybreak on 8 November the reconnaissance officer of Battery A, who had accompanied the Battalion S-2 on a daylight reconnaissance the day before and who had been briefed on the situation, drove over a concealed route through the Cattenom Forest, to Hill 182. (Map E) He took with him his driver and one other enlisted man. An SCR 610 radio, a telephone, field glasses, and a battery commanders telescope, (79) made up the equipment needed to establish the observation post.

A wire line was brought to the edge of the forest near Hill 182 by a battalion wire team. The observation post group extended this line to the top of the hill and other

(77) (78) Statement of Lt. Knight, Exec O, Battery C, dated 24 Jan. 1949; (79) Observing instrument.

final preparations were made to observe the registration in the afternoon.

From this high ground, the line of the Moselle River ^{cut} p24 from a point even with Fort Koenigsmacher south to the edge of Thionville was clearly visible. (Map E) The area directly across the river to the east was generally flat, but, because of wooded areas, it was impossible to find a road intersection or other similar terrain feature which could be definitely located on both the ground and on the 1/25,000 map being used in the fire-direction center to prepare the firing chart. (80)

After a very careful search of the area, it was found that the only objects which could be used as check points (81) were a few prominent church steeples.

The S-3 in telephone conversation with the observer finally agreed that, although it was not desirable, the church steeples would have to be used.

In spite of the difficulties of observation as a result of rain and the generally foggy atmosphere, registrations were successfully completed on the church steeple in Valmestroff and on the one in Basse Ham. (Map E)

If the need for complete secrecy in the preparation for the attack had not prevented the use of Air OP's, the observers from this higher altitude would have been able to locate a road intersection or other suitable check point

(80) Without this definite location on both the ground and the firing chart, a registration is of no value in computation of firing data for future unobserved fire; (81) A visible point of known location selected as a target for registration, (FM 6-40, p. 424).

and the regrettable damage to the churches would not have been necessary.

A third registration in the northern part of the area of battalion fire possibility (82) was desired because corrections obtained from registration on any single check point are valid for only limited range changes and deflection shifts from that point. Attempts to find a suitable point on the Fort Koenigsmacher Ridge or to the north of it were futile. (83)

With the howitzers in position, the registration and subsequent computations completed, and the battalion command post and fire-direction center established in a cafe in Soetrich, the battalion was ready to fire in support of the river crossing.

RELIEF OF THE BATTALION COMMANDER

No discussion of this period of operation of the 736th Field Artillery Battalion would be complete without an account of the relief of the battalion commander, Lt. Colonel Ernest J. Stocks, on 8 November.

The reason given for this relief was the fact that the XX Corps Artillery Commander, Brig. General Julius E. Slack, while making an inspection of the progress of the battalion in its preparations, discovered that camouflage discipline in the Battery C area was poor.

The specific things discovered by Brig. General Slack during his inspection of the number three howitzer of this

(83) Personal knowledge; (82) Area in which the battalion could deliver fire.

battery were: (84)

1. Two men wearing OD knit caps without helmets.
2. A very small open fire.
3. Two or three shelter tents pitched in the open.
4. Ammunition poorly stacked.
5. The howitzer tube not completely covered with the camouflage net.
6. Two or three OD blankets hanging on a wire fence to dry.

The actions taken by Brig. General Slack ^{were} ~~was~~: (85)

1. He went to the howitzer and admonished all who were present.
2. He reduced all non-commissioned officers and privates first class to private.
3. He fined the battery commander one hundred dollars.
4. He relieved the battalion commander.

*In the battery
at the Howitzer?*

It is well to point out here that General Slack had ^{cut} P28 visited this same battery while it was in the St. Marcel position, and had complemented battery personnel and the battalion commander on the fine emplacements constructed there. He stated to the battery executive officer at that time that the position was the best field fortification he had seen in Europe. He even said that he intended to invite General George C. Marshall, who was then on a tour of inspection in Europe, to inspect the position. (86)

(84) (85) (86) Statement of Lt. Knight, Exec O, Battery C, dated 24 Jan. 1949.

Major Martin G. Weiss, then executive officer of the nearby 733d Field Artillery Battalion, was designated as the officer to assume command. (87) The new battalion commander, knowing the reason for the relief of the former commander, immediately initiated a series of harrassing inspections of all installations of the command.

This was done in such a way that members of the battalion were left with the impression that the new commander had absolutely no faith in anyone's ability and that he was of the definite opinion he had assumed command of a unit of sub-standard operational proficiency and discipline.

The effect of this attitude can be appreciated only if the reader is informed of the extreme loyalty of the command to Colonel Stocks, together with the reasons for this loyalty.

The battalion was organized at Fort Ord, California, in the summer of 1943 and went through its first individual and unit training at that post under the leadership of a battalion commander who failed in building up esprit de corps.

During this period of training, it was noticeable to those in the battalion that individual batteries were, on the whole, well trained and capable of executing battery field problems with little or no trouble, and equally as noticeable that battalion problems met with considerably less success because of lack of sufficient prior planning, coordination, and teamwork. (88)

As a result of the above situation, the battalion failed

(87) A-10, p. 9; (88) Personal knowledge.

to pass Army Ground Forces tests taken at Hunter Liggett Reservation, California, early in 1944. This failure resulted in the relief of the battalion commander and Lt. Colonel Stocks (then Major) who had been Executive Officer of the 738th Field Artillery Battalion -- a battalion which had passed the tests with the same amount of training and under the same conditions that resulted in failure for the 736th -- assumed command.

Lt. Colonel Stocks was immediately popular with both officers and enlisted men, and, as a result, an almost overnight change came over the entire battalion. He soon had the battalion operating as a unit with esprit de corps and excellent teamwork.

After a very short period of intensive training the battalion easily passed the tests on 15 April 1944. (89) This success added even more to the growing feeling of belonging to a "good outfit" and the "old man" was hailed as almost a hero.

This explains the tendency of members of the battalion to compare the actions of all succeeding commanders to what they believed Lt. Colonel Stocks would have done in a like situation. This comparison often led to an undercurrent of criticism, and certainly led to lower morale in the unit.

Major Weiss, being the first successor, was thus compared and criticized most and, although he was an extremely capable artillery officer, he did not enjoy the complete

(89) A-10, p. 3.

support of those who served under him. (90)

This lack of support was not apparent in the battalion's ability to move, shoot and communicate, but it did lead to a great deal of unnecessary dissatisfaction and many misunderstandings.

SUPPORT OF THE RIVER CROSSING

The 90th Infantry Division also moved on the night of 7 - 8 November. (91) Its final assembly area was the Cattenom Forest just to the west of Cattenom. (Map E) In this area the infantry commanders made their final preparations for the attack the following morning.

No artillery preparation was fired for the attack, which started at 0330 hours on 9 November, (92) except for firing by the assault guns of the 3d Cavalry Group. (93) The primary purpose of this firing was to deceive the enemy. The noise of the assault guns covered the noise made by the infantry on the west bank of the river. Since these guns had been in the area for some time, their noise did not warn the enemy of the attack.

The Corps Artillery did fire counterbattery missions starting at H-hour. The 736th Field Artillery Battalion fired missions as ordered by the 195th Field Artillery Group.

more information needed

The 358th Infantry and the 359th Infantry made successful crossings (94) in spite of the rising level of the river, which by this time was approximately 300 to 600 feet wide.

(90) Personal knowledge; (91) A-1, p. 20; (92) A-9, p. 52; (93) A-1, p. 20; (94) A-1, p. 20.

The width, at the time original plans for the crossing were made, had been only 118 feet. (95)

The first move of the infantry met with little opposition and by nightfall the bridgehead was well established. The 359th Infantry, which had crossed at Malling on the left, had reached and captured Petite Hettange, Metrich and Kerling, while the 358th Infantry, which had crossed at Cattenom, was located in the vicinity of Fort Koenigsmacher and the town of Koenigsmacher. The 357th Infantry had two battalions across the river. (96) (Map E)

Details needed | Between 9 and 14 November, the 736th Field Artillery Battalion continued to support the bridgehead by firing missions assigned to it.

The observer on Hill 182 continued to seek likely targets, but actual adjustments observed from that point were nothing more than further registrations on check points. All intelligence information gathered, particularly last minute observations of the extent of the flood waters, was forwarded to battalion headquarters. (97)

The river had swollen by 10 November until it was approximately one and one half miles wide. (98) This obstacle seriously hindered the crossing operation and, as a result, the infantry was fighting with no armor support. Artillery fire was still being delivered from the west side of the river, since not even the division's own direct support battalion's had been able to cross to the east side.

(95) A-9, p. 52; (96) A-1, p. 20, 21; (97) Personal knowledge; (98) A-1, p. 22; A-9, p. 52.

On 11 November, Fort Koenigsmacher fell to the 358th Infantry. (99)

On 12 November, a determined counterattack was launched by elements of the enemy's 25th Panzer Grenadier Division against the 359th Infantry along the Petite Hettange-Kerling Road. This attack was successfully stopped at Petite Hettange in spite of the lack of friendly armor support. The fire of all available artillery within reach was brought down on the enemy. (100)

Of this attack, General George S. Patton, Jr., Commanding General Third U. S. Army, said: (101)

"On the twelfth, the 90th Division received a violent counterattack by the equivalent of a German infantry division. This they repelled in a very gallant manner although they had no tanks and no tank-destroyer guns on the east side of the Moselle River. However, the Corps Artillery to the extent of some thirty battalions came in effectively".

In describing a visit he made on 14 November to the scene of this attack, General Patton said further:

"General Van Fleet (102) took us to see the battlefield of the twelfth, and I have never seen so many dead Germans in one place in my life. They extended for a distance of about a mile, practically shoulder to shoulder". (103)

(99) A-1, p. 23; (100) A-1, p. 23, 24; (101) A-5, p. 171; (102) Commanding General, 90th Infantry Division; (103) A-5, p. 172.

*200 General
in defense.
The mission
died by the 736 Bn
should have been
engaged here*

MOVING ACROSS THE MOSELLE RIVER

By 14 November, pontoon bridges had been completed at Malling and Cattenom, and on that date a Bailey Bridge was finished at Thionville. This bridge was 190 feet long (104) and was capable of supporting tanks and heavy artillery.

The bridge site at Thionville had been taken by the 95th Infantry Division.

The pontoon bridges allowed the transportation of the infantry and the direct support artillery to cross, and on the afternoon of 14 November, the 10th Armored Division started to cross the bridge at Thionville and pass through the 90th Infantry Division. (105)

In keeping with its mission of general support, the 736th Field Artillery Battalion displaced to the vicinity of Cattenom on 14 November.

Battery C left its position at Soetrich at 1900 hours. The men were fed during the move by the simple expedient of tossing cases of "C" Rations from a jeep onto the moving trucks and tractors. (106)

The battery arrived at its Cattenom position at about 2200 hours and reported ready to fire the next morning. The mud in this position was not so bad as it had been at Soetrich, but the two men who carried the projectiles to the howitzer on a loading tray sank into the mud so deeply that they had to be pulled out before the howitzer could be fired. (107)

This move meant that a new firing chart had to be pre-

(104) A-1, p. 26; (105) A-3, p. 28; (106) (107) Statement of Lt. Knight, Exec O, Battery C, dated 24 January 1949.

pared and, therefore, it was necessary to again register on one or more check points.

Cut
P35

Since troops on the east side of the river had started to break out from the bridgehead, it was difficult to keep abreast of the exact location of friendly units. For this reason, as well as the fact that the weather was still bad and visibility from an Air OP poor, it was decided that a ground observer should be sent across the river.

The observation post on Hill 182 was no longer of any value, so the observer was ordered to discontinue activities there and report to the battalion command post for instructions. (108)

He was told to check his radio, draw necessary rations, and proceed across the Cattenom Bridge to register the battalion, which would be located near Cattenom. He was further instructed to stop at the 90th Division Artillery Command Post in Koenigsmacher (Map E) to learn the exact location of the infantry before trying to find a suitable vantage point from which to observe the adjustment. (109)

These instructions were issued by the battalion commander late in the afternoon and, as a result of the delay required to prepare for the mission and the slow progress made in the heavy stream of traffic crossing the one-way Cattenom Bridge, Koenigsmacher was not reached until after dark.

Information received there indicated that the front was changing rapidly and, since no adjustment could be made at

(108) (109) Personal knowledge.

night anyway[?] that it was not advisable to even attempt to find a suitable observation post in the dark.

The Battalion Commander was contacted by radio. It was not possible to communicate with the battalion SCR 608 radio while the observers SCR 610 radio was mounted in the jeep because the signal would not pass through the surrounding buildings. This problem was solved by removing the radio from the jeep and taking it to the loft of one of the buildings where it worked perfectly.

Permission to remain in Koenigsmacher for the night was granted, and a building across the street from the Division Artillery Command Post was chosen as a suitable billet. After a few hours sleep snatched between the noise of the exploding German light artillery shells which were falling at irregular intervals throughout the night, the observer team ^{? *how many?*} prepared to complete its mission.

A further check of the situation was made and the possibilities of having the adjustment made by a forward observer who was already with the front line troops was investigated. This plan was conceived with the idea of avoiding further delay in finding a suitable observation post. The plan was abandoned when a brief check did not reveal an observer who could be contacted readily. (110)

At daybreak the party left Koenigsmacher and proceeded toward the front lines in the vicinity of Valmestroff. (Map E)

(110) Personal knowledge.

It was discovered at this time that one vital bit of information had not been given the observer when he left the battalion the day before. He had not been informed of the azimuth on which the batteries of the battalion would be laid, nor had he been informed of a general area in which to seek suitable check points. He was forced, therefore, to ask for this information by radio.

A message was written and encoded, and an attempt was made to contact the battalion command post. First attempts were unsuccessful because of the location of the jeep and the radio mounted in it. This caused further delay in seeking high ground, which was found in the Fort Koenigsmacher area.

It was discovered when a reply from the Battalion S-2 was decoded that, although an azimuth of fire had been requested, the reply was sent in a coordinate code. This led the observer to believe that he had received the coordinates of the area in which a check point should be sought.

A futile search for the "coordinates" was made on all available maps of the area. The battalion was again contacted and the S-2 was asked to repeat his former message. The same message was received, and no better results were obtained in determining where the registration should be attempted.

Feeling that he had to find a suitable check point even though he had insufficient information, the observer proceeded to Valmestroff (Map E) and attempted to use the church steeple there as an observation post. From this point, observation was so limited that no likely check point could be

found. Several other equally futile attempts to accomplish the observation mission were made during the remainder of the day.

As darkness approached the party turned back, recrossed the Cattenom Bridge, and reported to the battalion command post in Cattenom. The observer felt that, since he had utterly failed in his mission, the new battalion commander would demand a complete explanation. He discovered that the entire battalion was in the process of crossing the river, and that no one was perturbed over the lack of a registration.

The mystery of the unlocated coordinates was solved when the S-2 was questioned on this point. He informed the observer that he had actually sent an azimuth in mills and that he had used the coordinate code for the numerals on the assumption that the observer would interpret the message correctly.

The battalion completed the move across the river early on 16 November and the batteries were emplaced in the vicinity of Basse Ham. The heavy column with howitzers, tractors, and ammunition trucks crossed the Bailly Bridge at Thionville while lighter vehicles crossed the Cattenom Bridge.

By this time, the 90th Infantry Division was executing a flanking movement to the south, and forward elements of the 358th Infantry had taken the high ground southeast of Inglange (Map F) in addition to sending two strong combat patrols into Metzervisse. Later the same day the regiment secured the high ground east of that town, and covered by

the fire of the XX Corps Artillery, the assault battalions advanced to the railroad track to their front. (111)

Farther to the left, the 359th Infantry had met resistance in the area of the Hackenberg fortifications. (112) The XX Corps operational report, in speaking of the action at this location, states:

"At a range of 2,000 yards, self-propelled guns in the 359th Infantry zone, on the left, worked methodically on the Hackenberg fortifications. Team-
ed with the 8 inch howitzer (113), these weapons soon silenced the enemy guns." (114)

*How much firing
did the 736 Bn do
what were missions
& how assessed?*

It is interesting to note that a later inspection of this fort showed that, "the direct fire from the 155 mm self-propelled guns had demolished the walls and turrets, torn guns loose from their mountings, and killed the occupants of the turrets and casemates." (115) Thus it was shown that the high velocity direct fire of a weapon firing a 100 pound projectile was more effective on the fortification than the relatively low velocity indirect fire of a weapon firing a 200 pound projectile. NOTE

At the time this action was taking place the 10th Armored Division was preparing for an armored attack in the direction of Merzig to the northeast. (116)

During the two day period spent at Basse Ham, the battalion requested an engineer team to give selected enlisted men from each battery refresher training in the detection and

(111) (112) A-1, p. 27; (113) The 736th FA Bn. had the only 8" howitzers within range; (114) (115) A-1, p. 27; (116) A-1, p. 27.

removal of mines. This training was carried out because of reports and evidence of extensive mine fields in the area. These mine fields were fairly well marked by dead Germans, damaged American equipment, and engineer marking tape. (117) The dead Germans and damaged equipment were mute evidence of the difficulty the mines had caused the retreating Germans as well as the advancing American assault elements.

The battalion lost no howitzers or other heavy equipment from mines, but, on 20 November, Captain James Ball, 1st Sgt. Joseph Manning, and Corporal Desmond Williamson were injured when the command car of Battery C ran over a mine on the Basse Ham - Valmestroff Road two miles south of Basse Ham. This was a heavily traveled road which had been used by American troops and vehicles for about a week. (118) None of these injuries were fatal. No other casualties resulting from enemy action occurred during the period being discussed. (119)

On 16 November, the new battalion commander made a slight change in battalion staff and battery personnel. The reconnaissance officer of Battery A was ordered to report to battalion headquarters and assume the duties of assistant S-2, or survey officer, while the old survey officer was ordered to go to Battery A to become the reconnaissance officer.

This shift was considered as a demotion by the old survey officer and his section of highly trained specialists.

The new assistant S-2 sensed that his section felt a

(117) Personal knowledge; (118) A-10, p. 9, 10; (119) Personal knowledge.

definite injustice had been done their old leader. He also knew that he had to prove himself a capable survey officer immediately.

Most of this section had known him well, during the early days of training at Fort Ord, California, as the motor officer of Headquarters Battery, and had some difficulty at first visualizing him in his new role.

With these things in mind, the survey officer called the section together and told them that he realized they were loyal to their old leader and that he knew from past observation that all members of the section were well trained and well qualified survey men. He also stated that, since they and he were about equal in knowledge of survey techniques, any ideas they had for speeding up or improving any particular survey would be considered carefully, and if possible, incorporated in the plan for that survey. He warned them, however, that all such ideas would have to be endorsed by him and made a definite part of the plan.

These statements apparently met with approval and no problems of discipline were encountered. (120)

SURVEY TECHNIQUES DURING THE FINAL STAGES OF THE OPERATION

Recon

The battalion was on the move again on 18 November. This move was necessary in order to occupy positions for better support of the advancing front line, then moving

(120) Personal knowledge; Several months later members of the section jokingly told the officer that they had been afraid he would be as inflexible in his survey ideas as he had been in his insistence that tire pressure be kept to the exact pound, when he had been Motor Officer.

rapidly to the south to link up with the 5th Infantry Division troops east of Metz.

not shown on maps →
The first area assigned for firing positions was in the vicinity of Distroff. The battalion commander, survey section, firing battery commanders with small parties, and the communications officer with a wire team went forward to make a reconnaissance of the new area, while the battalion executive officer prepared the battalion for the move.

This area had been reconnoitered, battery positions selected, and survey started when orders were received to occupy a position farther south at Metzeresche. (Map F) It was stated at the time that the battalion was being pushed this much nearer the front lines to enable it to fire on main roads leading out of Metz to the east so the use of these escape routes would be denied the enemy. (121)

The reconnaissance party found upon arrival that the area was being vacated by a mortar platoon and that it was well enough defiladed to provide suitable howitzer positions.

The survey officer was shown the intended location for the base piece of each of the three firing batteries by the respective battery commanders and immediately started to formulate his survey plan.

A position area survey only was required. This consisted of locating the base piece of each battery in relation to those of the other batteries, and locating each battery, on the map being used as a firing chart, to the nearest yard

(121) Personal knowledge.

in both the X (right) and Y (up) directions, as well as, to the nearest yard vertically (altitude). In addition an orienting line (122) was required in each battery position.

Before this could be done, it was necessary to have a starting point of known location (coordinates) and altitude, as well as, a known azimuth from that point to another point.

This information on the initial point of the survey was furnished to the battalions of XX Corps Artillery by the 7th Field Artillery Observation Battalion whenever it was possible.

At Metzeresche the information was not available because of the fast moving situation, so it became necessary to depend on information taken from the excellent 1/25,000 maps of the area,

Speed was essential, both because the battalion was already on the move and because less than two hours remained before darkness. No time consuming techniques could be employed.

It was necessary to find a point on the ground which could be definitely located on the map and which was so located that it could serve as a starting point for the survey.

A well defined road junction could have been used for this starting point, but the best point readily picked out was the church steeple in Metzeresche.

This was good for two reasons. First, it could be seen easily from at or near each base piece and second, it

(122) A line of known direction, materialized on the ground, conveniently near the firing battery, to serve as a basis for laying for direction. (FM 6-40, p. 428).

was known from prior experience that churches were located accurately on the maps.

The fact that the steeple could be seen from each battery area meant that the distance from the base piece, or a point near it, to the steeple could be determined by a method known as triangulation. (See Annex I) This was desirable since it meant a saving of time as compared to other slower methods of determining the distance.

The one vital factor missing was the accurate direction from the proposed starting point of the survey, the church steeple, to some other point on the terrain.

A quick map and visual reconnaissance was made to try to solve this problem. From several points on his earlier route of reconnaissance, the survey officer had noticed that the church steeple in the village of Luttange to the south was clearly visible. The map reconnaissance indicated that it would also be visible from the Metzeresche Church steeple.

If this were true, an angle measuring instrument might be located high in the Metzeresche steeple and sighted on the Luttange steeple. If this could be done, the required angles to the necessary points in the firing battery areas could be readily measured.

An examination of the church itself revealed that there had recently been an observation post inside the steeple and that several plank platforms connected by ladders were part of the permanent interior equipment.

The survey officer easily made his way to the top plat-

form and discovered that all necessary angles could be measured if an aiming circle (123) were placed on the platform and a few loose boards and shingles were removed.

Since the tentative plan was workable, the entire survey section was assembled and the details of the plan were explained. (See Annex II) Members of the section were given specific jobs and the ground work was started.

The section equipment consisted of two transits and two aiming circles, either or both of which could be used to measure the necessary angles. A decision was made to use only the aiming circles because they were accurate enough for the problem at hand and they could be set up, moved, and used more rapidly.

The survey ground work was completed in about one and one half hours, and the necessary computations were finished after dark. (124)

Prior to darkness, the firing batteries arrived. One howitzer was quickly emplaced and the S-3 went to that battery position in a command car equipped with an SCR 608 radio. He chose a check point and contacted a battalion liaison plane which was already in the air with an observer. Instructions were given to observe an adjustment on the check point.

The S-3 gave the necessary fire commands directly to the battery executive and the familiar "on-the-way" was soon relayed to the observer in the plane. A speedy adjustment was completed and the S-3 with the resulting data

(123) An instrument used to measure horizontal and vertical angles in mils. (124) Personal knowledge.

proceeded to the new fire direction center in Metzeresche.

As soon as the survey computations were completed, the coordinates and altitude of the base piece of each battery as well as the azimuth of each orienting line were given to the fire-direction center and the final plotting and computations were completed there.

what missing if any, were fired from this position
By this time, batteries were reporting that they had completed emplacing the howitzers and that they were ready to fire. The battalion was prepared to aid in the final phase of the encirclement and entry of Metz.

The regiments of the 90th Division were making good progress. During the day the 359th Infantry in the center had gone through Aboncourt (Map F) and St. Hubert and early the next morning had captured Les Etangs. (125)

The 357th Infantry, on the left, had encountered more obstacles, but had reached and outposted Bockange (Map F) by nightfall. (126)

To the right the 90th Reconnaissance Troop had relieved the 358th Infantry and had advanced to Nancy. (127) (Map F)

The capture of Les Etangs by the 359th Infantry had cut off two enemy columns moving to the east. Artillery fire and bombs from fighter-bombers were massed on these columns, and sixty three vehicles were destroyed. (128)

The encirclement in this area was completed when the 90th Reconnaissance Troop made contact with the 735th Tank Battalion, which was supporting the 5th Infantry Division, at 1100 hours on 19 November. (129)

(125) (126) (127) (128) (129) A-1, p. 28.

Nearer the city, elements of the 95th and 5th Infantry Divisions had also made contact. The task of mopping up was started, but it was not until 13 December that the last of the forts, Jeanne d'Arc, surrendered. (130)

On 20 November the 736th Field Artillery Battalion was ordered to move north to support the troops moving to the northeast. (131) Thus, its part in the history making capture of Metz was officially ended.

ANALYSIS AND CRITICISM

In analyzing this operation it is well to consider the Corps level plans and results first.

The attack on Metz from a point south as well as a point north of the city prevented the enemy from being able to concentrate his forces in any one area. At first glance it might appear that the principle of mass was violated by American commanders, but this was not true. At both attack points sufficient troops were massed to outnumber and overwhelm the enemy.

The pressure of the 95th Infantry Division in the center served to keep enemy forces occupied who might have been used against one or both of the main attacks.

The enemy by concentrating his forces in prepared positions immobilized them and made it possible for the attacking forces to advance through his more weakly defended flank areas. This effect could have been partially, if not wholly, nullified if a large mobile reserve had backed up

(130) A-3, p. 30; (131) A-10, p. 10; Personal knowledge.

the prepared fortified area to give it depth as well as to provide an all important strong counterattacking force. This force could have crushed the advancing Americans.

General Highland

The Corps plan for secret moves of units prior to the attack was well thought out and well executed. It contributed greatly to the successful employment of the principle of surprise. It is doubtful, however, that the enemy surprise would have been as complete had it not been for the heavy rains and resulting swollen rivers. The energetic execution of the entire plan in spite of these obstacles resulted in the enemy being caught off guard. The complete surprise resulting from these contributing factors is well illustrated by the lack of opposition to the first waves of infantry crossing at Cattenom and Malling.

insufficient detail in narrative to properly support this

The Corps Artillery Commander was able to make excellent use of the principle of mass. He had an abundance of artillery and so placed it that it could deliver maximum fire in support of the advancing front line troops. The heavy battalions fired effectively on targets located more deeply into enemy territory. Prior experience in firing into the fortified area had proven what little effect artillery had in neutralizing the forts themselves, so it was not misused in this manner.

The fact that artillery, when used in mass, is extremely effective was illustrated by the successful breaking up of the relatively strong armored infantry counterattacking force along the Petite Hettange-Kerling Road on 12 November. Had fire not been delivered promptly and in volume, the in-

fantry there would have suffered much greater losses.

The removal of Lt. Colonel Stocks on the eve of a pending operation shows that commanders are definitely responsible for the acts of those under their command, and that, in spite of their own ability, they may sometimes fail because one or two men do not realize the importance of certain restrictions or orders.

No 17 The Corps Artillery Commander acted decisively to correct a situation which he found, but it is believed that he did not realize the impact of his action on the battalion.

✓ The new commander antagonized a group of men and officers who were already deeply hurt and critical because of the injustice they felt had been done to their former commander. It would have been better to become acquainted with the organization first and then gradually make the necessary changes or improvements.

↖ ✓ The situation which led to this relief might have been avoided if the old battalion commander had required every man to attend briefing sessions while the battalion was in bivouac at Ottange. These briefings should have outlined the impending action and the absolute need for secrecy.

The comparison of the effect of the direct fire from the 155 mm gun and the indirect fire from the 8 inch howitzer illustrated clearly that indirect fire should not be depended upon to knock out or destroy strong fortifications.

Good point → The limited observation from Hill 182 showed that one observation post or method of observation should not be depended upon. The limitations of this particular observation

post were compensated for to a certain extent by posts established by other artillery battalions in the same group and later by air observers, but at least one other ground post established by the battalion would have aided in complete coverage during the morning of the first day of operations as well as during the day prior to the attack.

The observer sent across the river on 14 November failed in accomplishing his mission because he was not given complete instructions and as a result did not know where he should concentrate his efforts. A more thorough briefing would have prevented part of his confusion and lack of effectiveness. He would have saved time and effort himself by simply going back to the battalion for more information instead of aimlessly continuing his reconnaissance for an observation post and suitable check point.

no R (The improper use of a communication code caused more confusion in the mind of the already undecided observer. A careful preparation of the message by the officer sending it would have eliminated this doubt. *The failure of the observer did not hamper the Bn because no missions were assigned to the Bn while in this form position?*

The survey plan adopted on 18 November, although unique in some respects, was sound. It enabled the batteries to be located quickly and accurately on the maps at hand, and contributed materially to the accuracy of unobserved fires. A less imaginative plan would likely have resulted in either less speed in completion of the survey or in less accurate information for computation of firing data.

In summing up this operation, it can be said that the enemy by leaving a comparatively isolated strong point for-

ward of his main line of defense, with the mission of defending to the last man, lost an important city, vast amounts of materiel, and a large number of men. The attacker, on the other hand, gained important terrain from which to launch further attacks against the main defense.

LESSONS

1. The principle of mass can be applied when attacking at more than one point provided attacking forces at each point are superior to the attacked forces.

2. The principle of surprise can be applied with good results if adequate plans are made and the plans are energetically put into practice by all participants in the operation.

3. Strong defenses are of little value if located where they can be encircled and if not backed up with sufficient mobile reserves.

✓ 4. Artillery when used in mass can greatly influence the outcome of battle.

✓ 5. Artillery is a hard striking reserve which can be used effectively to repel an attack or counterattack.

✓ 6. Commanders of all echelons must insure that troops under their command observe security restrictions imposed by higher headquarters.

✓ 7. Newly assigned commanders must leave no doubt that they have assumed command, but initially, must avoid unnecessary changes.

✓ 8. Direct fire from high velocity weapons is more ef-

fective against fortifications than indirect fire from relatively low velocity weapons.

✓ 9. Observation must be planned for maximum coverage of all critical areas in spite of conditions of terrain and weather.

✓ 10. If subordinates are to successfully complete an assigned task, instructions must be clear, concise, and complete.

✓ 11. Communication codes must be used carefully to avoid confusion.

✓ 12. Speed can be attained in artillery survey by the proper use of imagination and available information in formulating the survey plan.

ANNEX NO. I

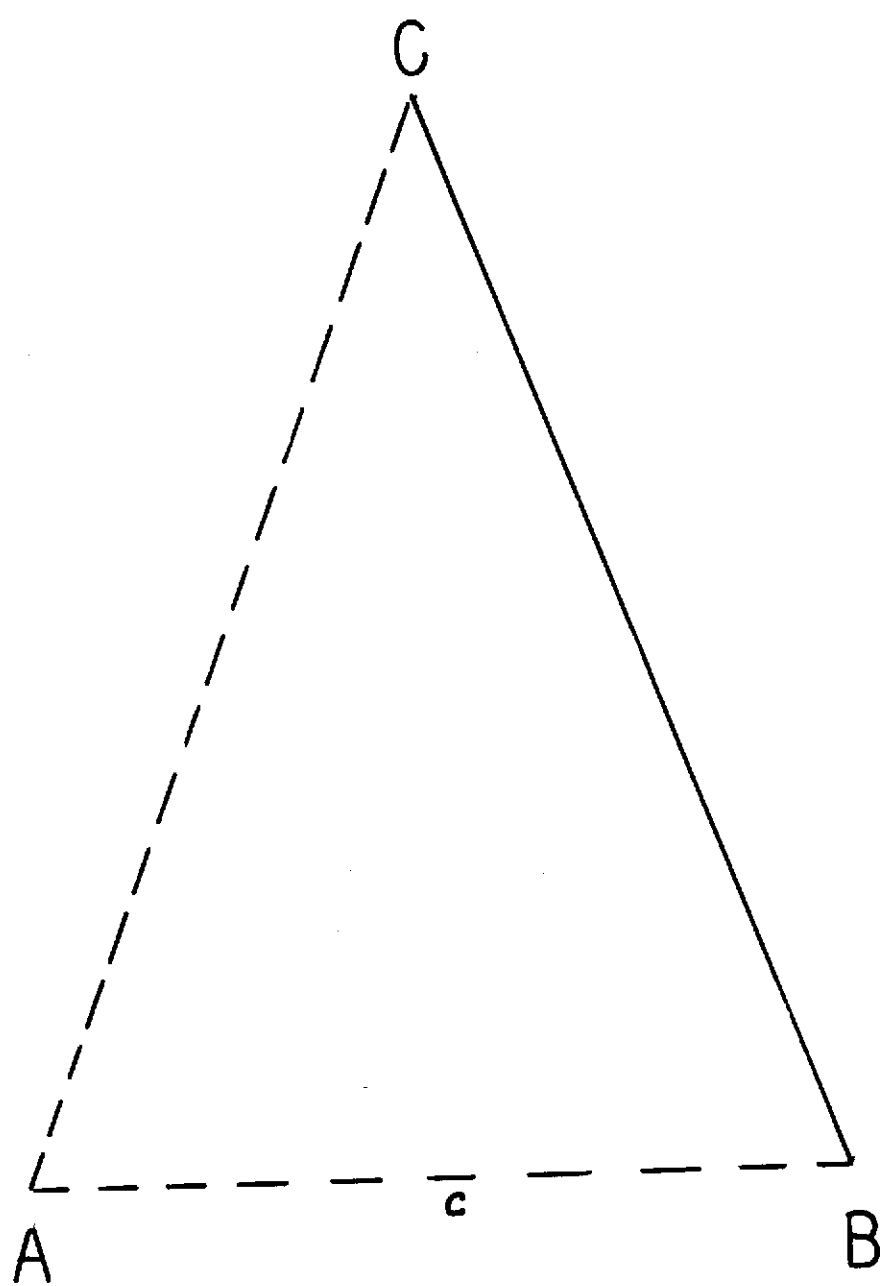
Procedure for Determining a Distance by the
Triangulation Method

1. Distance B to C desired. (Side BC of triangle)
2. Lay out base AB on the ground and determine its length accurately.
3. Measure angles A and B.
4. If possible, measure angle C as a check on the accuracy of the measurements (angle A plus angle B plus angle C = 3200 μ), or determine by solving the formula: Angle C = 3200 μ - (angle A plus angle B).
5. Solve the formula:

$$\text{Side desired} = \text{Base} \times \frac{\sin \text{ of angle opposite desired side}}{\sin \text{ of angle opposite the base}}$$

or

$$BC = \text{base C} \times \frac{\sin \text{ of angle A}}{\sin \text{ of angle C}}$$



ANNEX NO. II

Survey Plan for 18 November 1944:

The Survey Plan for a single battery was:

- a. Determine the azimuth from the Metzeresche Church steeple to the Luttange Church steeple from the map.
- b. Put the aiming circle in the top of the church steeple in Metzeresche.
- c. Measure angle 1. (This determined the azimuth from the church steeple to the base piece of the battery).
- d. Lay out the line from the base piece to Station A on the ground and determine its length accurately.
- e. Measure angles 2 and 3. (Angle 4 was measured with the instrument in the top of the church steeple).
- f. Solve the triangle (Station A, Church steeple in Metzeresche, base piece of battery) to determine the distance from the base piece to the church steeple.
(See Annex No. I)
- g. Using the azimuth and distance which have been determined from the church steeple to the base piece, determine the location of the base piece.
- h. Measure angles 5 and 6 to carry direction to the orienting line. (OL in diagram)
- i. Establish the orienting line on the ground so it may be used later by the battery executive officer in laying the howitzers for direction.
- j. Place a tag on the place mark stake to inform the battery executive of the exact azimuth of the orienting line.

